

REMARKS

Applicant has studied the Office Action dated March 2, 2007. Claims 1-33 are pending. Claims 1-3, 5, 6, 8, 11-13, 16, 18, 19, 21, 26, 28, 29, and 31-33 have been amended. Claims 1, 11, 21, and 28 are independent claims. No new matter has been added as the amendments have support in the specification as originally filed.

It is submitted that the application, as amended is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Amendments to Specification

Amendments have been made to the specification at paragraphs 0040, 0041, 0044 – 0046 and 0051 - 0054 to correct typographical errors and more clearly disclose the invention. No new matter has been added as the amendments have support in the specification and drawings as originally submitted.

Amendments to the Claims

Claims 5, 12, 18, 26, 29 and 31-33 have been amended to address claim objections based on informalities, correct typographical or grammatical errors or to more clearly disclose the invention. It is respectfully submitted that the amendments have support in the application as originally filed and are not related to patentability.

Objection to Drawings

The Examiner objected to the drawings. Specifically, the Examiner asserted that Figure 2 does not include reference number 135, which is disclosed in paragraph 0045 of the specification, and that reference number 135, which disclosed in paragraph 0047 of the specification as "GPIO," is labeled "GP1O."

With this paper, an amended Figure 2 has been submitted that contains reference number 135 and has the label for reference number 139 changed from "GP1O" to "GPIO." It is respectfully submitted that the grounds for the objection have been overcome and it is respectfully requested that the objection be withdrawn.

Objections to Claims

The Examiner objected to claim 26 due to informalities. Specifically, the Examiner asserted that the acronym "GPIO" is not defined in the claim.

With this paper, claim 26 has been amended to define "GPIO" as "general purpose input/output," as disclosed in paragraph 0047 of the specification as originally filed. It is respectfully submitted that the grounds for objection have been overcome and it is respectfully requested that the Examiner withdraw the objection.

§ 112 Rejections

The Examiner rejected claims 1-33 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner asserted that the phrase "adapted to" in claims 1-3, 8, 11, 13, 16, 19, 21 and 28 is vague and indefinite and, therefore those claims and all claims that depend from those claims are vague and indefinite. The Examiner further asserted that claims 1 and 2 are inconsistent with the apparatus disclosed in the specification since claim 2 recites that the apparatus "further comprises" a "comparing means" while the specification discloses a "controller" that performs the recited function of the "comparing means," thereby the specification describes a single structure that is claimed as multiple structures, which renders unclear the relationship between the recited "enabling means," "switching means" and "comparing means."

With this paper, claims 1-3, 8, 11, 13, 16, 19, 21 and 28 have been amended to delete the phrase "adapted to." It is, therefore, respectfully submitted that those claims are no longer vague and indefinite and it is respectfully requested that the rejection be withdrawn.

With regard to the Examiner's assertions with regard to structure recited in claims 1 and 2, it is respectfully noted that paragraph 0040 of the specification discloses a "converting unit 110" that is analogous to the recited "converting means," paragraph 0044 of the specification discloses a controller 124" that is analogous to the recited "enabling means" and paragraph 0043 of the specification discloses a "switching unit" that is analogous to the recited "switching means." Furthermore, it is respectfully noted

that claim 2 has been amended with this paper to recite the functions of the previously recited "comparing means" with regard to the "enabling means." Therefore it is respectfully submitted that claim 1 is clear as originally filed with regard to the relationship between the recited "converting means," "enabling means" and "switching means" and the grounds for rejection of claim 2 have been overcome. It is respectfully requested that the rejection be withdrawn.

§ 102 Rejections Citing Nakamura

Claims 1-4, 7-15, 18, 20, 21, 23, 26, 28-30, 32, and 33 were rejected under 35 U.S.C. § 102(e) as being anticipated by Nakamura (U.S. Patent No. 7,138,992). Applicant respectfully disagrees with the Examiner's interpretation of Nakamura and respectfully traverses the rejection.

It is respectfully noted that a proper rejection for anticipation under § 102 requires complete identity of invention. The claimed invention, including each element thereof as recited in the claims, must be disclosed or embodied, either expressly or inherently, in a single reference. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1369, 21 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1991).

With regard to the rejection of independent claims 1, 11, 21 and 28, it is respectfully noted that the Examiner, at paragraph 10 on page 7 of the Office Action, asserts the following analogies:

1. Between the "power source 23" in Nakamura and the "voltage source" recited in the claims.
2. Between the "EL display device 21" in Nakamura and the "display" recited in the claims.
3. Between the "LED" in Nakamura and the "backlight illumination unit" recited in the claims.
4. Between the "DC/DC converter" in Nakamura and the "converting means / converting unit / converter" recited in the claims.

5. Between the “converter controlling section 41” in Nakamura and the “enabling means / controller” recited in the claims.

6. Between the “FET 43” in Nakamura and the “switching means / switching unit / switch” recited in the claims.

It is respectfully submitted that, given the Examiner’s asserted analogies, it is clear that Nakamura fails to anticipate the limitations recited in independent claims 1, 11, 21 and 28

It is respectfully noted that independent claims 1, 11, 21 and 28 recite that the converting means / converting unit / converter is turned off and on by the enabling means / controller. It is further respectfully noted that independent claims 1, 11, 21 and 28 recite that the switching means / switching unit / switch operates to apply one of the output of the voltage source and the constant voltage to the backlight illumination unit. Moreover, it is respectfully submitted that the defining feature recited in independent claims 1, 11, 21 and 28 is the switching between output of the voltage source and the constant voltage as the source of power for the backlight illumination unit.

It is respectfully noted that the Nakamura is directed to “a method for calibrating luminance of a display” and “a driving circuit for the display.” See col. 1, ll 10-17. It is respectfully submitted that the only place in Nakamura where the asserted “LED” is disclosed is with regard to the “preferable mode” of a “display made up of a Light-Emitting Diode (LED)” at col. 3, ll. 58-62 and claim 5, the portions specifically cited by the Examiner. Moreover, it is respectfully noted that Nakamura discloses methods and apparatus for applying power to the “EL display device 21,” which, as disclosed, may be “made up of a Light-Emitting Diode (LED).”

It is respectfully submitted that the analogy asserted by the Examiner between the “EL display device 21” in Nakamura and the “display” recited in the claims and between the “LED” in Nakamura and the “backlight illumination unit” recited in the claims are inconsistent since the claims of the present invention are directed to the application of one of the output of the voltage source and the constant voltage to the backlight illumination unit and the Examiner’s asserted analogies would fail since there is no disclosure in Nakamura of the application of power to the “LED.” It is further respectfully submitted that the only analogy that may be made between the “EL display device 21”

of Nakamura and the present invention is to the backlight illumination unit recited in the claims.

It is respectfully noted that Nakamura discloses, at col. 5, ll. 25-31, that " V_{OUT} " is the source of power for the "EL display device 21," or the device analogous to the backlight illumination unit. It is respectfully submitted that there is no disclosure in Nakamura of any switching of " V_{OUT} " between "power source 23," or the device analogous to the voltage source, and the output of the "DC/DC converter," or the device analogous to converting means / converting unit / converter that provides the constant voltage.

It is respectfully submitted that Nakamura discloses to determine an amount of light incident on the display "[I]n order to divide the output voltage V_{OUT} to be applied to the organic EL display device 21" or, in other words to adjust " V_{OUT} " in proportion to an amount of light incident on the display. See col. 7, ll. 1-23. It is further respectfully submitted that the disclosed adjustment of the source of power for the "EL display device 21" is not sufficient to anticipate the recited switching between output of the voltage source and the constant voltage as the source of power for the backlight illumination unit.

It is respectfully noted that the Examiner specifically states that Nakamura, at col. 5, ll. 31-36 and 54-57, discloses that the "converter controlling section turns on and off the FET, i.e. applying either the voltage from the voltage source or from the converting controlling section to the organic EL display device, and as a result, also controls the DC/DC converter, i.e. turn on and off the converter." Applicant respectfully disagrees with the Examiner's assertion.

It is respectfully noted that Nakamura discloses that the "converter controlling section 41 turns ON and OFF the FET 43 so that the divided voltage V_D becomes equal to a reference voltage V_{REF} " and the adjustment of " V_D " is done "so that the output voltage V_{OUT} does not drop with an increase of a current flowing through the organic EL display device 21." See col. 5, ll. 25-57. It is further respectfully noted that " V_D " is not the supply voltage for the source of power to the "EL display device 21," but rather is a voltage provided to "the organic EL display power source 22" and "[a]s a result, the organic EL display power source 22 produces, based on the divided voltage V_D , a high

output voltage V_{OUT} used to drive the organic EL display device 21.” See Col. 7, ll. 54-64.

It is respectfully submitted that there is no disclosure in Nakamura that turning the “FET 43” on and off applies “either the voltage from the voltage source or from the converting controlling section to the organic EL display device” or that the “DC/DC converter” is turned “on and off”, as the Examiner asserts. It is further respectfully submitted that the disclosed adjustment of V_D only results in an adjustment of V_{OUT} and does not result in “applying either the voltage from the voltage source or from the converting controlling section to the organic EL display device” or controlling the DC/DC converter in order to “turn on and off the converter,” as the Examiner asserts.

It is respectfully submitted that the Examiner’s asserted analogies lead to the conclusion that the “converter controlling section 41,” or the device analogous to the enabling means / controller recited in the claims, turns off and on the “FET 43,” or the device analogous to the switching means / switching unit / switch recited in the claims. It is further respectfully submitted that the conclusion to which the Examiner’s analogies lead is contrary to the claims, which recite that the enabling means / controller turns the converting means / converting unit / converter off and on, with no recitation in the claims that the switching means / switching unit / switch is turned off and on by the enabling means / controller.

It is respectfully asserted that the Examiner’s asserted analogies regarding the structure disclosed in Nakamura fail to anticipate the structure recited in independent claims 1, 11, 21 and 28 and, therefore, independent claims 1, 11, 21 and 28 are allowable over Nakamura. It is further respectfully asserted that claims 2-4 and 7-10, which depend from claim 1, claims 12-15, 18 and 20, which depend from claim 11, claims 23 and 26, which depend from claim 21, and claims 29, 30, 32 and 33, which depend from claim 28, also are allowable over Nakamura.

§ 102 Rejections Citing Hartular

Claims 1, 2, 7, 11, 12, 18, 21, 23, and 27 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hartular (U.S. Patent No. 6,873,322). Applicant respectfully disagrees with the Examiner's interpretation of Hartular and respectfully traverses the rejection.

With regard to the rejection of independent claims 1, 11 and 21, it is respectfully noted that the Examiner, at paragraph 11 on pages 8-9 of the Office action, asserts the following analogies:

1. Between the "power source 102" in Hartular FIG. 1 and the "voltage source" recited in the claims.
2. Between the "light emitting diode 318" in Hartular FIG. 3 and the "backlight illumination unit" recited in the claims.
3. Between the "DC/DC converter 303" in Hartular FIG. 3 and the "converting means / converting unit / converter" recited in the claims.
4. Between the "minimum decision circuit 320" in Hartular FIG. 3 and the "enabling means / controller" recited in the claims.
5. Between the "switch 313" in Hartular FIG. 3 and the "switching means / switching unit / switch" recited in the claims.

It is respectfully submitted that, given the Examiner's asserted analogies, it is clear that Hartular fails to anticipate the limitations recited in independent claims 1, 11 and 21.

It is respectfully noted that Hartular discloses, at col. 2, ll. 65-67 and FIG. 1 that "power source 102 is the only source of power for the "LCD panel circuit 106" and "LCD 108." It is further respectfully noted that Hartular discloses, at col. 3, ll. 39-51 and FIG. 2 that "power source 202 is the only source of power for the "LCD panel circuit 206." It is further respectfully noted that Hartular discloses, at col. 4, ll. 24-32 and FIG. 3 that "power source 302" is the only source of power for an "LCD panel circuit (not illustrated)" and "LED 318." Moreover, it is respectfully noted that Hartular discloses that the output of the "DC/DC converter 303," or the device analogous to converting

means / converting unit / converter that provides the constant voltage is always connected to "LED 318" in FIG. 3.

It is respectfully submitted that the disclosure in Hartular makes it clear that the reference numbers 102, 202 and 302 are not different power sources, but rather the same "power source". Therefore, it is further respectfully submitted that Hartular does not disclose more than one power source for any of "LCD panel circuit 106" and "LCD 108" in FIG. 1, "LCD panel circuit 206" in FIG. 2 or "LCD panel circuit (not illustrated)" and "LED 318" in FIG. 3.

It is respectfully noted that independent claims 1, 11 and 21 recite that the converting means / converting unit / converter is turned off and on by the enabling means / controller. It is further respectfully noted that independent claims 1, 11 and 21 recite that the switching means / switching unit / switch operates to apply one of the output of the voltage source and the constant voltage to the backlight illumination unit. Moreover, it is respectfully submitted that the defining feature recited in independent claims 1, 11 and 21 is a switching between output of the voltage source and the constant voltage as the source of power for the backlight illumination unit.

It is respectfully noted that the Examiner specifically states that Hartular, at col. 4, ll. 36-55, discloses that the "minimum decision circuit controls the switch and the DC/DC converter, i.e. turn on and off, that base on the signal generated by the comparator." Applicant respectfully disagrees with the Examiner's assertion.

It is respectfully noted that the disclosure in Hartular is that the "minimum decision circuit 320" selects either "the first path input to the input terminal In1 of the minimum decision circuit 320" or the "the other path input to the input terminal In2 of the minimum decision circuit 320" to control the "DC/DC converter 303" such that the "DC/DC converter 303 is advantageously responsive to the control signal from the error amplifier 334 to adjust its output DC voltage level." See col. 5, ll. 17-43. It is respectfully submitted that there is no disclosure in Hartular that the "DC/DC converter 303," is turned off and on by the "minimum decision circuit 320." It is further respectfully submitted that the disclosed selection of the control path for the "DC/DC converter 303" and the adjustment of the "output DC voltage level" of the "DC/DC converter 303" is not

sufficient to anticipate the recited switching between output of the voltage source and the constant voltage as the source of power for the backlight illumination unit.

It is respectfully noted that Hartular discloses that the "switch 313" enables and disables the "LED 318." See col. 5, ll. 17-18 and 29-30. It is respectfully submitted that there is no disclosure in Hartular that the "minimum decision circuit 320" controls the "switch 313".

It is respectfully submitted that there is no disclosure in Hartular of any switching of the source of power for "light emitting diode 318," or the device analogous to the backlight illumination unit, between the "power source" designated by 102, 202 and 302," or the device analogous to the voltage source, and the output of the "DC/DC converter 303," or the device analogous to converting means / converting unit / converter that provides the constant voltage. It is further respectfully submitted that there is no disclosure in Hartular that the "DC/DC converter 303," or the device analogous to converting means / converting unit / converter, is turned off and on by or the "minimum decision circuit 320," or the device analogous to the enabling means / controller.

It is respectfully submitted that the Examiner's asserted analogies lead to the conclusion that the "switch 313," or the device analogous to the switching means / switching unit / switch recited in the claims turns off and on the "LED 318," or the device analogous to the backlight illumination unit recited in the claims. It is further respectfully submitted that the conclusion to which the Examiner's analogies lead is contrary to the claims, which recite that the enabling means / controller turns the converting means / converting unit / converter off and on, with no recitation in the claims that the backlight illumination unit is turned off and on.

It is respectfully asserted that the Examiner's asserted analogies regarding the structure disclosed in Hartular fail to anticipate the structure recited in independent claims 1, 11 and 21 and, therefore, that independent claims 1, 11 and 21 are allowable over Hartular. It is further respectfully asserted that claims 2 and 7, which depend from claim 1, claims 12 and 18, which depend from claim 11 and claims 23 and 27, which depend from claim 21, also are allowable over Hartular.

Claims 5, 6, 16, 19, 22, 24, 25, and 31

It is respectfully noted that the only rejection of these claims in the Office Action is with regard to 35 U.S.C. § 112, second paragraph. Since it is respectfully submitted that the rejections under 35 U.S.C. § 112 have been overcome, it is respectfully assumed that these claims now contain allowable subject matter and Applicant respectfully requests confirmation from the Examiner. It is respectfully asserted that claims 5, 6, 16, 19, 22, 24, 25 and 31 are in condition for allowance at least by virtue of their dependence from an allowable independent claim.

CONCLUSION

In view of the above remarks, Applicant submits that claims 1-33 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as originally filed, are requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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Date: June 1, 2007

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Enclosure: Substitute FIG. 2

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